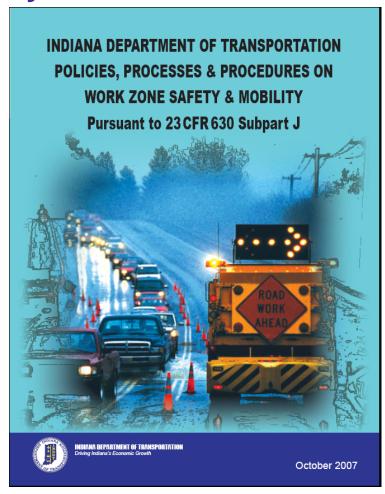


#### <u>Policies, Processes & Procedures on</u> <u>Work Zone Safety & Mobility</u>

#### **INDOT's Work Zone Policy Statement**

- "Policies, Processes & Procedures on Work Zone Safety & Mobility" was submitted to the FHWA on October 4, 2007
- FHWA concurred that INDOT was in compliance in letter dated October 15, 2007
- The complete document is downloadable, along with other safety information from the INDOT website at this address:

http://www.in.gov/indot/7316.htm





#### <u>Policies, Processes & Procedures on</u> <u>Work Zone Safety & Mobility</u>

### **Policies**

- All work zones in Indiana must conform to:
  - Part 6 of the Manual on Uniform Traffic Control Devices
- Additionally, Contracted and Permitted Work must meet:
  - Standard Specifications
  - Standard Drawings
- In-house Maintenance Work must adhere to INDOT's Work Zone Safety Manual



### **Policies**

#### **Interstate Work Zone's**

- Must satisfy the Interstate Lane Closure Policy
- Developed to reduce crashes and travel time in work zones.
- Provides pre-approved lane closure schedules for each and every segment of interstate highway.
- Addresses limits on <u>queuing</u> and <u>delays</u> based on threshold queuing values.



### **Policies**

#### **Significant Projects**

- A project that is anticipated to cause sustained work zone impacts greater than what is considered tolerable based on INDOT policy and or engineering judgment
- Once designated as "Significant" a work zone receives formal Traffic Management Planning (interstate and off-interstate)



### **Policies**

#### Significant Project Specifically defined as:

- By the federal rule; Any interstate project in a Transportation Management Area that occupies a location for more than three days with continuous or intermittent lane closures.
- By the INDOT Design Manual; A project that is new construction or major reconstruction and exhibits high traffic volume.
- Also by the Design Manual; A project meets one or more than one of six other factors described in the Design Manual and is new construction or major reconstruction or exhibits high traffic volumes.
- Includes Off-Interstate Work Zones



### **Policies**

#### **Local Federal-Aid Projects**

Agreements will stipulate conformance to all INDOT work zone policies and procedures



### **New Training Program**

- Advanced Work Zone Management (NHI)
  - Will assist in TMP efforts
  - Production, Traffic Control Systems, Construction
     Management and District Traffic
- Design and Operation of Work Zone Traffic Control (NHI)
  - Will assist in TTCP preparation
  - In-house Production, Construction Management and District Traffic
- QUEWZ98- Production offices & District Traffic personnel for waivers and impact

- Significant projects will require formal Transportation Management Plans
  - Formal TMP's have three components:
    - Temporary Traffic Control Plan
    - Traffic Operation Plan
    - Public Information Plan
  - Exceptions to the formal TMP requirement may be granted via waivers
    - To be approved by the FHWA for projects that automatically qualify
    - Otherwise approved by the DCHM.



- Temporary Traffic Control Plans
  - Includes all devices used for temporary traffic control
    - Barrels, cones, vertical panels, etc.
    - Standard signs
    - Changeable Message signs
    - Temporary tape and paint
    - Temporary concrete barriers
    - Any other TTC devices.



- Traffic Operations Plan
  - Specifies how traffic will move through or around the work zone
  - Will maximize safety
  - Will minimize queueing and delay
  - May include:
    - Police patrols
    - Detours
    - Use of improved shoulders
    - Strategic ramp closures to limit weaving
    - Etc.



- Public Information Plan
  - Measures taken to inform the public what the current conditions are and the best alternative routes available
  - May include
    - Public meetings prior to the start of construction
    - Daily press releases
    - Brochures in rest areas
    - Website information
    - Variable Message Signing
    - Other measures in the future the 511 system



Non-significant projects only require the Temporary Traffic Control Plan element

Contract bidding of TMP's will, generally, continue be Method Based (as opposed to Performance Based)



### Significant Project Determination Implementation Dates

All projects not to:

the design hearing of plan development by Jan. 1, 2008, or

with a letting date after June 1, 2008
will require a significant project determination
and either a formal TMP or an approved
variance, if applicable.



### **ILCP Background**

- Developed to reduce crashes and travel time in work zones
- Task group began work in 2001
- Adopted in 2003
- To be followed by planners, designers and implementers of interstate lane closures
- Two versions
  - Contracted Work
  - In-house Maintenance Activities



### Changes in the Interstate Lane Closure Policy Current Policy

### **ILCP Purpose**

- Establishes acceptable queuing
  - 1.0 miles or less is acceptable
  - 1.0 miles to 1.5 miles is acceptable for up to two hours
  - over 1.5 miles is unacceptable
- Contains Pre-approved lane closure schedules to met this goal

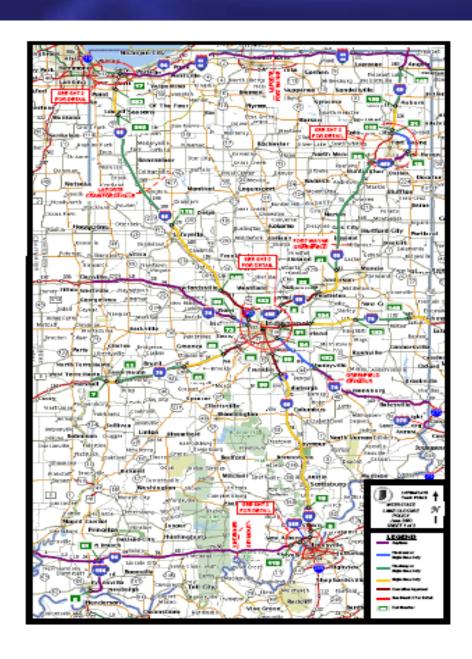


#### **Current Policy:**

## Statewide Pre-Approved Closure Schedules

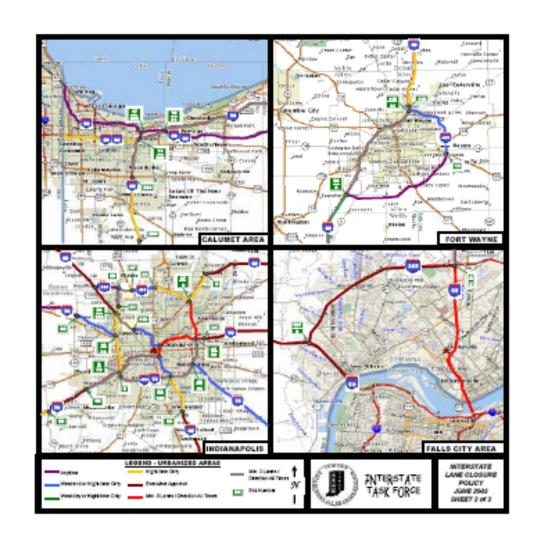
- Anytime
- Weekend or Nighttime Only
- Weekday or Nighttime Only
- Nighttime Only
- Executive Approval
- ☐ Min. 3 Lanes/Dir All Times
- Min. 2 Lanes/Dir All Times





**Current Policy:** 

Pre-Approved
Closure Schedules
in the Urbanized Areas





#### <u>Current Policy</u>: Non-Compliant Work

- Construction activities require:
  - Queue analysis
    - Acceptable queuing proceed with project development
    - Unacceptable queueing submit a waiver request
  - A traffic management plan
- Emergency Repairs- waivers not required



### Proposed Changes

- Combine the Contracted Work and Maintenance Activity Policies into one
  - Still allows for different treatment of
    - Non-compliant work.
    - Monitoring of work zone and queues
- Clarification
  - Time descriptions refer to single lane closures
  - Waiver requests
    - Construction waivers approved by the DCHM
    - Maintenance waivers still approved by the DDHO
    - FWD Testing to be approved by DDHO
    - Correct transmittal memo
    - Memo should indicate the number of lanes to be closed



### **Proposed Changes**

- Updating the lane closure schedules with newer traffic counts
  - Hourly volumes used; adjusted to 2008
  - Volumes compared against capacity (1400 pce)
  - Queuing analysis performed where volume exceeded capacity
  - New closure schedules for about one-half of the system
    - For example- much of the I-65, I-69 & I-70 corridors would be "NIGHTTIME ONLY"





### Queue/Delay Analysis Programs

Quickzone

http://www.tfhrc.gov/pubrds/08jan/05.htm

Synchro/SimTraffic

http://www.trafficgroup.com/services/synChro\_simtraffic\_2D\_simulation.html

Corsim

http://www-mctrans.ce.ufl.edu/featured/TSIS/Version5/corsim.htm

QUEWZ98



Questions??????

# END CONSTRUCTION

